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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/049,834

02/19/2002

Wolfgang Scheibe

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EXAMINER

BOECKMANN, JASON J

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/049,834	<b>Applicant(s)</b> SCHEIBE ET AL.	
	<b>Examiner</b> Jason J. Boeckmann	<b>Art Unit</b> 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6/2/2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17-19, 21-32, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 33 and 37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 8/17/1999. It is noted, however, that applicant has not filed a certified copy of the 199 38 921.7 application as required by 35 U.S.C. 119(b).

### ***Drawings***

Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is not clear what is meant by the valve rod having an extra length in relation to the distance between the sealing surface and the stop surface. It appears that the claim can be reworded in a more clear fashion: for example, "the valve actuator having a valve rod, the valve rod having a length that is greater than the distance between the sealing surface and the stop surface." It is noted that element 30 is located in-between the valve rod 16 and the sealing surface 17. Is the valve rod longer than the distance between the stop surface and the sealing surface even when the ball 30 is located between the valve rod and the sealing surface?

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-15, 17-19, 21-32, 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Baumgartner et al. (6,161,813).

Baumgartner et al. shows a valve comprising: an opening (the path below element 25) having a sealing surface (where element 25 touches the valve seat); a stop (the upper surface of element 54) displaced a distance from the opening; and an electromagnetic control valve including: a valve actuator (139) having an opening position (up) and a closing position (down), the valve actuator including: an actuator sealing surface (25) that engages the sealing surface of the opening when the valve actuator is at the closing position, an actuator stop surface (the bottom surface of element 139) that engages the stop when the valve actuator is at the closing position,

and a valve rod (127) disposed between the actuator sealing surface and the actuator stop surface, wherein when the valve actuator is at the closing position, the valve rod is compressed to a length that is shorter than a length of the valve rod when the valve actuator is at the opening position. It is noted that the length of the valve rod (127) is longer than the distance between the stop surface and the sealing surface (see figure 3, reference number 62), And that just about any material will deform elastically depending on the amount of force applied to it.

Regarding claims 2 and 22, the stop surface of the actuator is significantly larger than the sealing surface (see Fig. 3).

Regarding claims 3, 4, 23 and 24 the valve actuator is formed with a one-part valve rod and it contains a valve body which touches the front face of the valve rod and contains the sealing surface of the actuator (25).

Regarding claims 5 and 25, the valve body is constructed as a sphere, which interacts with the opening for the passage of fluid, forming a seal (See Fig. 3).

Regarding claims 6 and 26, the sealing surface of the actuator (25) is the front face of the valve rod formed by the actuator.

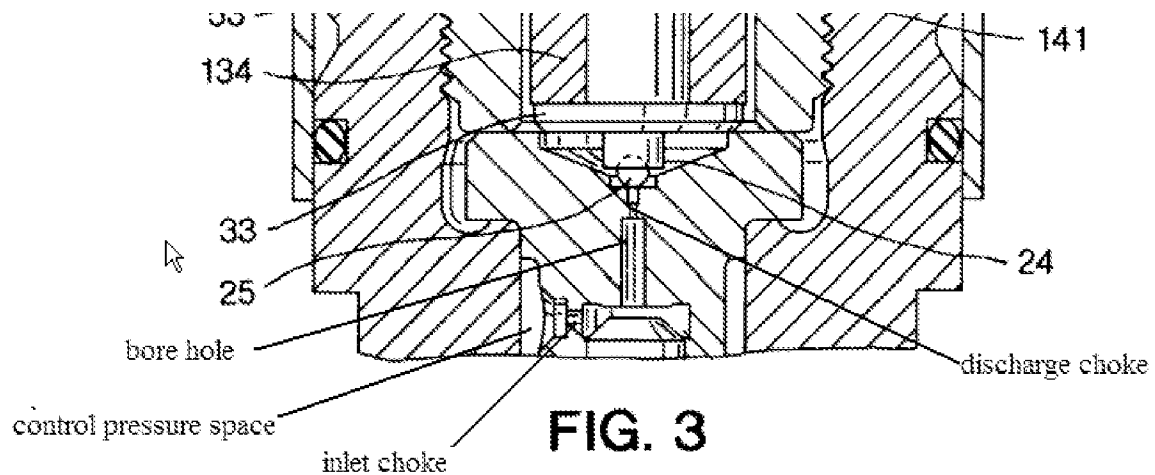
Regarding claims 7, 9, the valve actuator (139) is essentially mushroom-shaped, the stem of the mushroom forming the valve rod and the stop surface of the actuator being an annular collar, concentrically surrounding the valve rod in the region of the mushroom cap (24) (see Fig. 3).

Regarding claim 8, the valve actuator is divided in a dividing joint into an actuator stop (near 24), having the stop surface of the actuator, and a valve rod, which is in operative connection with the sealing surface and the stop of the actuator.

Regarding claims 10, 11, 27 and 28, the valve rod is guided axially movably in at least one guide bushing (134) and is disposed at a small distance from the sealing surface of the actuator (see Fig. 3).

Regarding claims 12, 13, 29 and 30 the length of the valve rod is a multiple of its diameter (see Fig. 3) and the sealing surface is formed in the end face of a disk-shaped insert part (the valve seat) (see Fig. 3) and adjoins the control pressure space on the side averted from the sealing surface.

Regarding claims 14, 15, 17-19, 31, 32 and 34-36 the insert part (also forms a stop for the valve needle ) is formed in two parts with a first part, which contains an opening for the passage fluid and a discharge choke (see examiners marked up figure 3) and a second part at the control pressure space side, with a bore hole (see examiners marked up figure 3) which connects the control pressure space (see examiners marked up figure 3) with an opening for the passage of fluid. The second part contains an inlet choke (see examiners marked up figure 3) near the bore hole (see examiners marked up figure 3). The pressure space is connected with an inlet choke and the rear end of the valve needle (see examiners marked up figure 3) averted from the nozzle needle seat surface lies in the control pressure space.



**Examiner's Marked Up Figure #3**

***Allowable Subject Matter***

Claims 33 and 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 16 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed 6/2/2004 have been fully considered but they are not persuasive.

Regarding the applicants arguments concerning the Baumgartner et al. reference, it is noted that the functional recitations; "wherein a closing movement of the valve actuator... is taken up by an elastic deformation of the valve rod" of claim 1, and "wherein when the valve actuator is at the closing position the valve rod... when the valve actuator is at the opening position," of claim 21, have little or no patentable weight, a functional recitation must be expressed as a "means" for performing the specified function, as set forth in 35 USC 112, 6<sup>th</sup> paragraph, and must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. In this case, the apparatus of the prior art only has to be capable of performing the particular function, and in this case the valve rod of Baumgartner et al. is capable of deforming or compressing. It is noted that all materials are compressible to a certain extent depending on the amount of force applied to them, see the rejection above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Boeckmann whose telephone number is (571)272-2708. The examiner can normally be reached on 8:00- 5:00, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. J. B./

Examiner, Art Unit 3752

5/6/2008

/Len Tran/

Supervisory Patent Examiner, Art Unit 3752